

ACTIVE INTRUSION RESISTANT ENVIRONMENT OF LAYERED  
OBJECT AND COMPARTMENT KEYS (AIRELOCK)

## ABSTRACT OF THE DISCLOSURE

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5 A high level of security and fault tolerance is provided in a digital network by use of highly secure infrastructure of user transparent signalling for communicating detection of signals at a network node having characteristics of a potential attack to another node and controlling communications at routers at the node from another node in response to the user transparent signals. A processor is connected to the routers and the network through an encryption engine and includes a manager object to issue control commands to nodes of a locally lower hierarchy tier and managed objects to detect potential attacks and exercise control over the routers responsive to 10 signals from a node of a locally higher hierarchy tier. Identifications are provided for communications between nodes regardless of whether or not a corresponding user is identified and communications are logged. Thus any network 15 session comprises one or more secure sessions in a plurality of security domains and any fault or potential attack can be compartmentalized to a node or sector of the network and isolated while normal communications are continued over redundant 20 network links. 25